PRELIMINARY

Health Assessment for

1339 y 8

WILLIAM DICK LAGOONS

HONEYBROOK, PENNSYLVANIA

SEPTEMBER 30, 1988

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT
WILLIAM DICK LAGOONS
HONEYBROOK, PENNSYLVANIA
September 30, 1988

Prepared by:
Office of Health Assessment
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The William Dick Lagoon site is listed on the U. S. Environmental Protection Agency (EPA) National Priorities List (NPL). The site consists of three unlined lagoons (approximately 2.5 acres total area) which previously contained over four million gallons of rinse water from cleaning chemical tank trailers. In 1970, two of the lagoons breached and released approximately 300,000 gallons of wastewater into the nearby area and a small tributary.

Environmental Contamination and Physical Hazards

Trichloroethylene, toluene, 4,4-DDE, and polynuclear aromatic hydrocarbons have been reported in the soil on the site. Trichloroethylene (120 ug/l) was detected in a nearby spring, previously used as a water source by a small number of residents. No air sampling was reported. No physical hazards were reported.

Potential Environmental and Human Exposure Pathways

Surface soil is contaminated, giving rise to the potential for off-site migration due to surface runoff and contaminated dust movement. Contaminants found in spring water indicates that the groundwater in the area contains chemicals from the site. Potential human exposure pathways include ingestion of contaminated water, dermal exposure to contaminated water and soil, and inhalation of contaminated dust and organics in the contaminated groundwater.

Demographics

The closest residence is approximately 400 feet from the site. Approximately 4300 persons live within three miles of the site. Two trailer parks are one-half and three-quarters of a mile from the site.

Evaluation and Discussion

Natural springs which are adjacent to the site have been used in the past as potable water sources by at least four residences. The perso

these residences have been provided with bottled water and have been offered an alternative uncontaminated water supply. The level of trichloroethylene (TCE) in this spring water is a health concern and the water should be avoided until the levels of TCE are lowered. The levels of the polynuclear aromatic hydrocarbons shown in the soil are high enough to be of concern if they are found at these levels in residential areas. The levels are not significant in an industrial area. The levels of trichloroethylene and 4,4-DDE found in the soil are not of health concern.

ATSDR has prepared or will prepare Toxicological Profiles on all of the contaminants discussed in this Preliminary Health Assessment.

Conclusions and Recommendations

Based on the available information, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances via the above-named human exposure pathways. However, it does not appear that a human population is currently exposed to site contaminants at levels of health concern. The work plan for the site indicates that an alternate water supply for nearby residences which use/used the contaminated spring will be provided. A well-monitoring program is to be provided and access to the area with contaminated soil is to be restricted.

The potential for further off-site movement of contaminated soil and groundwater should be evaluated, especially if the material can move into residential areas.

Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data become available, e.g., the completed RI/FS, such material will form the basis for further assessment by ATSDR at a later date.